(11) (21) No. 874828

(47) ISSUED July 6, 1971

(52) CLASS 221-14
C.R. CL.

(54) CANADIAN PATENT

(54) 12 PINT BEVERAGE CARRIER WITH DISPENSER

(72) Westcott W. Cherry and Clyde R. Robinson, Toronto, Ontario, Canada

(73) Granted to Continental Can Company of Canada Limited, Toronto, Ontario, Canada

(21) APPLICATION No. 072,513
(22) FILED Jan. 19, 1970
DIV'N OF APPL'N No. 936,069 filed July 16, 1965

(30) PRIORITY DATE

This invention relates to containers and to blanks therefor.

This application is a divisional application of Canadian patent application Serial No. 936,069, filed July 16, 1965.

Containers have heretofore been proposed in which a product is packed for shipment and which container, after retail sale of the container and contents, can readily be converted into a dispenser for the product. For example, relative movement between parts of the container can be used to provide a temporary dispensing slot or opening which is then closed immediately after an item has been dispensed, or a small section of one of the panels of the container can be removed completely to provide a permanent dispensing opening.

These containers are usually intended for relatively light products such as cigarettes or soap pads and are not particularly suitable for heavier products such as cans containing beverages. Even if these known containers are produced from board material of increased thickness and strength, they will still not function satisfactorily when filled with heavy, or relatively heavy, products.

The present invention seeks to provide a container which is specifically designed for dispensing a relatively heavy product such as canned beverages.

More particularly, the container according to the invention includes a breakaway section bounded by weakened lines. This section initially forms part of the walling of the container and subsequently can be completely detached, or almost completely detached, from the remainder of the container. The removal of this panel section exposes a dispensing opening while leaving the bottom wall of the container intact or substantially intact.

The container according to the invention also includes a handle, formed integrally with the remainder of the container, and being adapted to permit easy handling of the relatively heavy, full container.

A further feature provided by the invention is a second breakaway panel adapted to permit access to be had to the interior of the container at a location remote from the dispensing opening. This arrangement permits used cans to be returned to the container whereby the container and the empty cans can be disposed of as a single unit.

Preferably, the empty cans are returned to the upper end of the container and the dispensing opening is at the lower part of the container thereby to permit cans to be dispensed, emptied and returned to the upper part of the container without interfering with further dispensing of full cans.

The invention is particularly directed toward a container for carrying a plurality of cylindrical cans, stacked side by side in pairs, comprising an elongated rectangular sleeve having two pairs of opposed side walls, a top wall and a bottom wall, a first pair of side walls having a width substantially equal to the length of said cans to be carried, the plurality of stacked cans including a top pair in which the axis of the cans is parallel with the top and the first pair of side walls, the top wall including a handle defined by a pair of parallel weak lines extending centrally across said top wall and partly down said first pair of side walls, whereby end portions of the so-formed handle flex inwardly when in a carrying position abutting against the curved surfaces of said top pair of cans, said side walls being provided with score means defining a tear-out section adapted to vacate a one-can-size discharge opening in one of said first pair of side walls, said opening, when formed, being located adjacent the bottom wall, and a manufacturer's flap

internally of said sleeve formed to lie adjacent the other of said first pair of side walls and opposite said opening.

The container, having both a dispensing and return opening, provides, in effect, a closed system for handling cans. The container thus is useful in encouraging the collection of used cans so that they can be readily disposed of in the proper area and thus minimize littering.

Having now generally described the invention, the same will be explained in more detail with reference to the accompanying drawings, in which:

Figure 1 is a perspective view of a first form of container according to the present invention in its filled condition;

Figure 2 is a vertical cross-section on the line 2-2 of Figure 1;

Figure 3 is a perspective view corresponding to Figure 1 and showing the container in its condition of use;

Figure 4 is a vertical section on the line 4-4 of Figure 1;

Figure 5 is a horizontal section on the line 5-5 of Figure 1;

Figure 6 is a vertical section on the line 6-6 of Figure 2;

Figure 7 is a horizontal cross-section on the line

7-7 of Figure 2;

Figure 8 is a perspective view of the upper part of the container of Figure 1;

Figure 9 is a plan view of the blank from which the container of Figure 1 is erected;

Figure 10 is a plan view of the blank after the same has been formed into a sleeve;

Figure 11 is an edge view of the blank of Figure 10;

Figure 12 is a perspective view of a second embodiment of the container according to the present invention;

Figure 13 is a plan view of the blank from which the container of Figure 12 is erected;

Figure 14 is an edge view of the blank of Figure 13;

Figure 15 is a view of the blank of Figure 13 after formation of the blank into a sleeve; and

Figure 16 is a cross-section on the line 16-16 of Figure 15.

Referring firstly to Figures 1 to 11 and in particular to Figure 9, the container illustrated in these Figures is erected from a blank generally indicated at 25. The blank 25 is cut and scored to provide a main part consisting of the following panels, namely, the side wall forming panel 26, a top forming panel 27, a further side wall forming panel 28, and a bottom forming panel 29. A manufacturer's flap 30 projects from the free edge of the panel 29 and is adapted to be secured to the free edge of the panel 26 to convert the blank 25 into a sleeve as shown in Figures 10 and 11. Each of the panels 26 to 29 is substantially rectangular in form and, on each side of each of these panels, flaps are provided which, in the erected container, abut one another and cooperate to define two further side walls of the container. More particularly, the panel 26

has flaps 31 and 32 on each side thereof, the panel 27 has flaps 33 and 34 on each side thereof, and the panel 28 has flaps 35 and 36 on each side thereof, the flaps 31 to 36 all being rectangular in form and the flaps 31, 32, 35 and 36 having a transverse width equal to half the width of the main part whereby in the assembled container the edges of the panels 31 and 32 and 35 and 36 abut as will be seen from Figures 1 and 3. The panel 29 has flaps 37 and 38 on each side thereof, the flaps 37 and 38 having a maximum width equal to the maximum width of the remaining flaps 31 to 36 but having a cutaway portion. The purpose of the particular configuration given to the flaps 37 and 38 will become apparent hereinafter.

A tape 39, for example a fiberglass reinforced tape, extends across the panel 27 and part way across each of the panels 26 and 28. To each side of the tape 39 are provided straight weakened lines 40, each line 40 extending across the panel 27 and a short distance into each panel 26 and 28. The lines 40 define between them a handle strip 41. It will be noted that one line 40 is straight throughout its length but that the other line 40 turns away from the tape 39 at the regions 42 and extends at an angle with respect to the tape 39 until it encounters a longitudinal score line 43 which bounds the panels 26 to 29 and the flaps 32, 34, 36 and 38. Centrally of each line 40 a short slit 44 is provided which extends normally of the lines 40. Scored lines 45 extend diagonally from the outward ends of the slits 44 and terminate at the adjacent one of the lines 40. This arrangement defines triangular areas which are adapted to be staved in under finger pressure to permit access to be had to both edges of the handle strip 41.

At the region generally indicated by the reference 46 there is provided a panel section 47 which is intended to be detached from the remainder of the container to provide access to

the interior of the container and permit the contents of the container to be removed. The boundary of the panel section 47 consists of a weakened line, for example, a line of perforations, and can be considered to have the following boundary portions, namely, two straight portions 48 and 49, one of which, the portion 49, coincides with the boundary between the panels 28 and 29. The other portion 48 is parallel to and spaced from the portion 49. Adjacent ends of the lines 48 and 49 are joined by rows of perforations arranged along curved lines 50. Consequently, the panel section 47 consists of a main, rectangular area forming part of the panel 28 and two substantially D-shaped areas joined to the ends of the main part of the panel section 47 and which themselves form part of the flaps 35 and 36.

The rectangular panel section has a line 51 thereacross which almost completely separates the panel section 47 into two parts. However, the line 51 is such that small bridging pieces of material join the panel section 47 into an integral whole. A small semi-circular portion 52 of the panel 28, bounded by a perforated line 53 and by the line 48, is intended to be detached completely from the remainder of the container blank upon finger pressure being exerted on the portion 52. Scored lines 53 and 54 extend across the section 47 from the two junctions between the line 48 and the line 53, and diagonal scored lines 55 extend from these junctions inwardly towards the line 51.

A container is erected from the blank illustrated in Figure 9 by folding the blank first along the lines bounding the panels 28 and 29 and then along the line bounding the panels 27 and 26 so that the flap 30 is overlaid by the free edge of the panel 26 and is adhered thereto. The blank is then in the form of a sleeve as illustrated in Figures 10 and 11. The container is closed by folding the flaps 33, 34, 37 and 38 so that these flaps lie in a plane normal to the plane of the panels 27

and 29 to which they are attached. The flaps 31, 32, 35 and 36 are then folded so that they overlap the previously folded flaps 33, 34, 37 and 38 and the parts of the flaps which overlap are adhered to one another.

It will, of course, be understood that the carton is closed around an array of beverage cans, generally indicated at 56 in the lower part of Figure 6. The ends of the cans 56 are adjacent those side walls of the container which are constituted by the overlapped flaps 31, 32 and 35, 36.

A purchaser of a container filled with cans staves in the triangular areas defined by the slits 44 and the score lines 45 and presses his fingers under the handle strip 41. Upon taking the weight of the filled container the handle strip 41 assumes the form illustrated in Figures 3, 6 and 8 and bows upwardly as illustrated thus facilitating carrying of the filled container.

To gain access to the contents of the container, the purchaser presses in the portion 52 with his finger thereby to allow him to gain access to the upper edge of the panel section 47. The lines 55 provided in the panel section 47 permit two triangular areas of the panel 47 to bend downwardly thereby permitting an even more secure grip to be taken on the panel section 47 which can then be detached from the remainder of the carton by an outward pull. The condition of the container at this stage is illustrated in Figures 2 and 6. Removal of the panel section 47 exposes the lowermost can 56, the removal of the D-shaped portions of the flaps 35 and 36 exposing parts of each end of this can so that the can may readily be gripped and pulled from the container. The particular shape of the flaps 37 and 38 prevents them from interfering with the removal of the cans, and such removal results in the front row of cans descending by one can diameter so that another can is immediate-

ly available for removal. The manufacturer's flap 30, located in the wall opposite the wall the panel section 47 is removed from assists in moving the cans in the rear row toward the opening as full cans are removed.

As described, the container according to the invention also acts as a disposal unit for the empty cans and to this end the upper part of the container can be opened by gripping the right-hand part of the top panel 27, as viewed in Figure 3, and pulling the same so that the carton tears along the lines 41A. One part of the panel 27 then assumes the position shown in Figure 8 leaving open a sufficient space to permit empty cans to be returned to the interior of the container. Cans so returned are indicated at 56A in Figure 6. It will be noted that the cans 56 are at right angles to the cans 56A so that the empty cans 56A cannot readily be confused with full cans 56.

The form of container shown in Figures 12 to 16 is basically the same as the above described embodiment, the only major difference between the two containers being in the arrangement of their parts.

The container shown in Figure 13 has four panels 100, 101, 102 and 103 which are adapted to form the vertical side walls of the container. A manufacturer's flap 104 is adapted to be secured, for example by adhesive, to the free edge of the panel 103 thereby to form the blank into a sleeve. A handle arrangement 140, which is substantially the same as the handle arrangement 40 in Figure 9, extends across the panel 101 and part way across the panels 100 and 102. Flaps 104 to 111 are provided at each end of each panel 100 to 103 and are adapted to overlap to form the smaller area end walls of the container. A panel section 147 extends across the panel 101 and has D-shaped sections defined by lines 150, the D-shaped sections being within the boundaries of the panels 100 and 102.

The handle arrangement 140 differs from the handle arrangement of the first described embodiment only in that a slit 44 and score lines 45 are provided to one side of the handle only. This provides sufficient access to the underside of the handle strip 140 to permit the same to be grasped.

The container is shown in Figure 12 in its "final" condition, that is, with the panel section 147 removed to allow cans to be dispensed from the container and with its disposal opening in a condition in which it is ready to receive empty cans. This disposal opening is formed as follows.

As will be seen from Figure 13, each panel 105 and 107 has a cut line 112 extending thereacross and an adjoining row of perforations extending along the boundary between the flaps 105 and 107 and the panels 102 and 100 respectively. The cut line 112 has short interruptions therein to provide bridging pieces which maintain the flaps 105 and 107 as integral whole panels until such time as it is desired to open the disposal aperture.

The line 112 serves to divide each flap 105 and 107 into flap parts 105A, 105B, and 107A and 107B respectively. In the erected container the flap parts 105A and 107A overlie the flap 106 and the flap parts 105B and 107B overlie the flap 104. To open the disposal aperture of the container the flaps 105 and 107 are torn along the lines 112 and opened out to the condition shown in Figure 12 or removed completely. This permits ready access to be had to the flap 104 which can then be lifted to the position shown in Figure 12 to permit free access to the interior of the container. It will be understood, that when the container is erected the flap parts 105A and 107A are glued to the flap 104, thus maintaining the flap parts 105B and 107B in place without necessitating the gluing of these flap parts to the flap 104.

The embodiments of the invention in which an exclusive property or privilege is claimed are defined as follows:

1. A container for carrying a plurality of cylindrical cans, stacked side by side in pairs, comprising an elongated rectangular sleeve having two pairs of opposed side walls, a top wall and a bottom wall, a first pair of side walls having a width substantially equal to the length of said cans to be carried, the plurality of stacked cans including a top pair in which the axis of the cans is parallel with the top and the first pair of side walls, the top wall including a handle defined by a pair of parallel weak lines extending centrally across said top wall and partly down said first pair of side walls, whereby end portions of the so-formed handle flex inwardly when in a carrying position abutting against the curved surfaces of said top pair of cans, said side walls being provided with score means defining a tear-out section adapted to vacate a one-can-size discharge opening in one of said first pair of side walls, said opening, when formed, being located adjacent the bottom wall, and a manufacturer's flap internally of said sleeve formed to lie adjacent the other of said first pair of side walls and opposite said opening.

2. A container as defined in claim 1 in which there is a reinforced material attached to the material of the container throughout the length of the handle and extending therebeyond down the side walls.

3. A can container-dispenser combination, as defined in claims 1 or 2, wherein said manufacturer's flap is directed upwardly toward said top wall from a position adjacent the bottom wall.

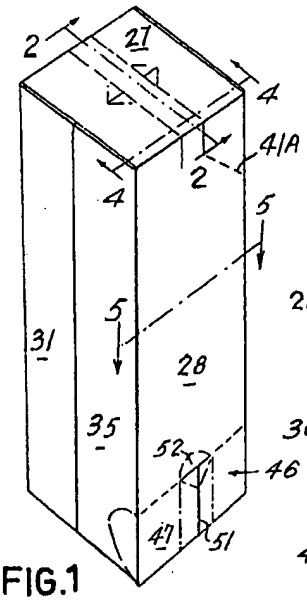

FIG.1

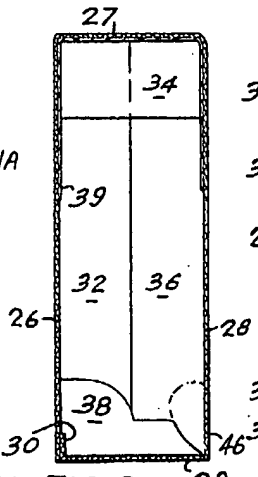

FIG.2

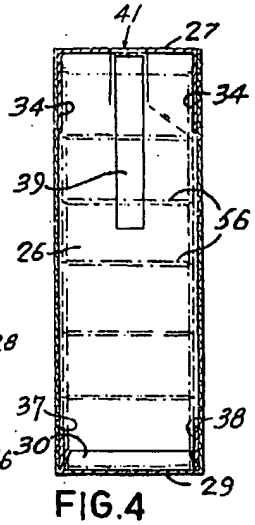

FIG.4

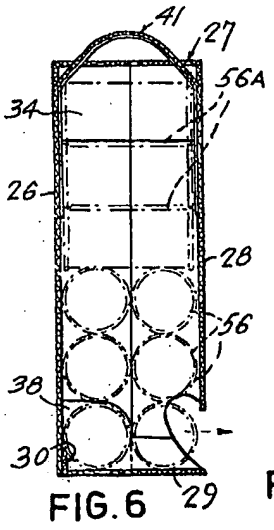

FIG.6

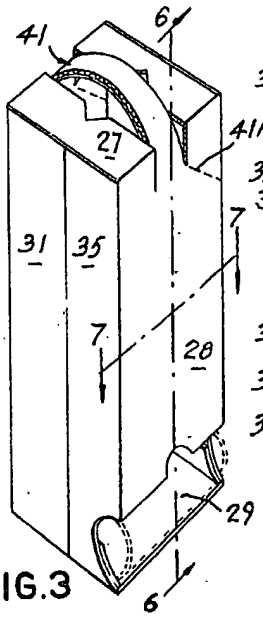

FIG.3

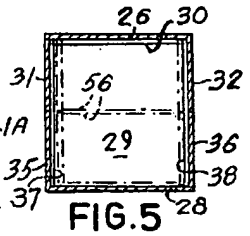

FIG.5

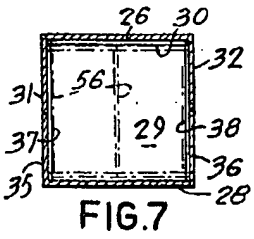

FIG.7

INVENTORS
Westcott W. CHERRY
Clyde ROBINSON
PATENT AGENTS

Allan Swabey & Co.

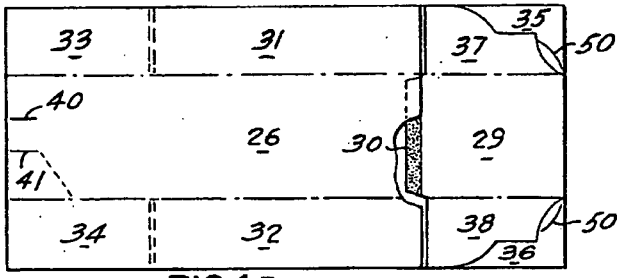

FIG.10

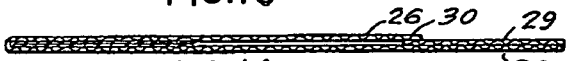

FIG.11

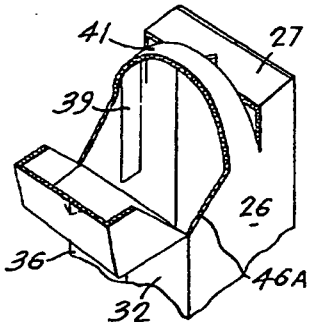

FIG.8

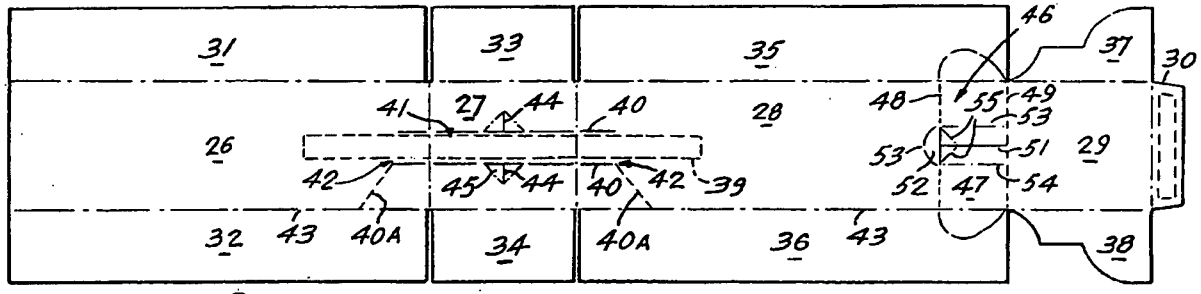

FIG.9

INVENTORS
Westcott W. CHERRY
Clyde ROBINSON
PATENT AGENTS

Allan Swabey & Co.

FIG.13

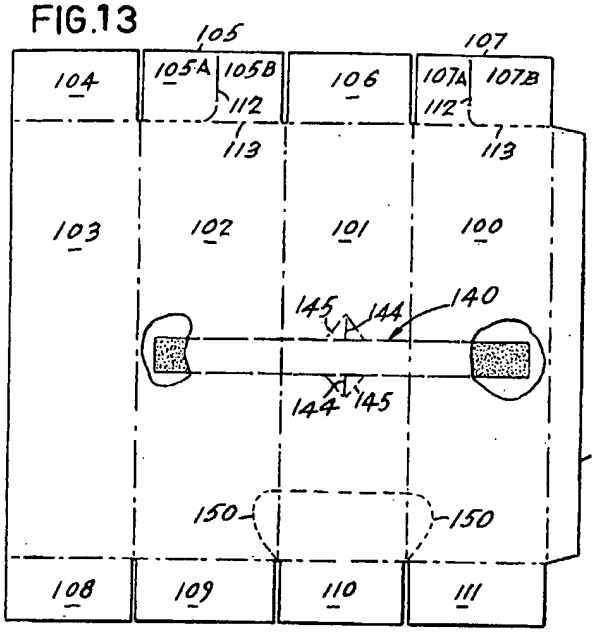

FIG.14

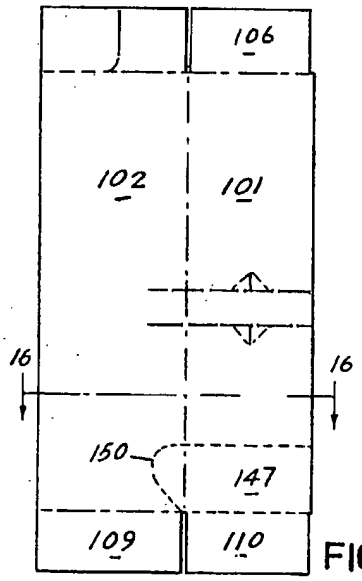

FIG.15

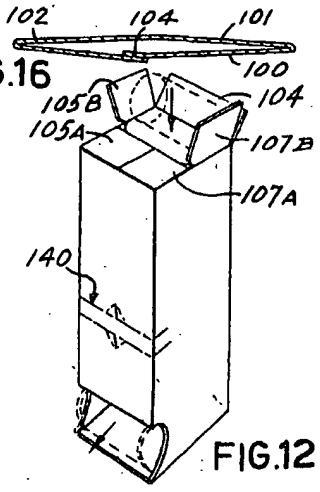

FIG.12

FIG.16

INVENTORS
Westcott W. CHERRY
Clyde ROBINSON
PATENT AGENTS

Allan Swabey & Co.